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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/704,171	11/01/2000	Jeffrey R. Aamodt	06576-105026 (MS#150515.1)	4207

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EXAMINER

BASOM, BLAINE T

ART UNIT	PAPER NUMBER
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2173

DATE MAILED: 10/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/704,171

Applicant(s)

AAMODT ET AL.

Examiner

Blaine Basom

Art Unit

2173

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20-50 is/are allowed.
- 6) ☒ Claim(s) 1-4, 7, 14, 18 and 19 is/are rejected.
- 7) ☒ Claim(s) 5, 6, 8-13 and 15-17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION***Response to Arguments***

The Examiner acknowledges the Applicants' addition of new claims 20-50, and the amendments to claims 3, 4, 13, 16, and 18. Regarding claim 1, the Applicants argue that Wiese (U.S. Patent No. 6,323,885) fails to disclose a user interface, which as expressed in the claim, is for generating condition structures in response to receiving graphical indicator conditions. The Examiner respectfully disagrees with this argument. As described in the previous Office Action, Wiese presents data values, specifically parcel prices; graphical indicators, specifically symbols and their associated colors; and graphical indicator conditions, specifically ranges and sub-ranges of parcel prices. The Applicants state that,

The Wiese reference merely describes that colors and shapes can be assigned to ranges and subranges of values. (See Col. 3, lines 14-18). Not only is the Wiese reference silent on how such an assignment of colors and shapes is accomplished, it is apparent to one of ordinary skill in the art that a user interface is not necessary or required to make such an assignment. In fact, a software developer could write code that would assign a shape and a color to a particular range and subrange of values, wherein the assignment is not modifiable by a user of the program.

Thus the Applicants admit that Wiese teaches assigning graphical indicators, specifically colors and shapes, to ranges and sub-ranges of values. Even if this assignment is done via code written by a software developer, as the Applicants contend, it is known in the art that a user interface, such as that of a text editor, is required to write such code. The software developer uses the interface to specify graphical indicator conditions, i.e. ranges and sub-ranges of parcel values, and associated colors and shapes. These ranges and sub-ranges, colors and shapes, and the associated parcel values delineate a condition structure as defined in the present application: a condition structure defines a relationship between data, graphical indicator conditions, and

Art Unit: 2173

corresponding graphical indicators. Such a text editor is therefore considered a user interface for generating condition structures in response to receiving graphical indicator conditions.

Consequently, it is maintained that the system disclosed by Wiese necessitates a user interface for generating condition structures, as is suggested by the previous Office Action.

In reference to claim 4, the Applicants argue that Wiese fails to teach converting graphical indicator conditions into condition structures that define a relationship between data, as is recited in the claim. The Examiner respectfully disagrees with this argument. As expressed in claim 4, a condition structure defines a relationship between data, graphical indicator conditions, and corresponding graphical indicators. In the previous Office Action it was shown that Wiese presents data values, namely parcel prices; graphical indicators, namely symbols and their associated colors; and graphical indicator conditions, namely ranges and sub-ranges of parcel prices. The Applicants state that column 3, lines 59-65 of the Wiese reference describes a CPU associating each color with a range of values, and each symbol with a sub-range of values; reading a value database; and associating the symbols with each street address in the database. Thus Wiese discloses that associations are made between the data values, graphical indicators, and graphical indicator conditions; these associations being made according to a relationship between the values, graphical indicators, and graphical indicator conditions specified by the user. A graphical indicator structure, as defined in the present application, is therefore inherently present, and generated from the values, graphical indicators, and graphical indicator conditions input by the user. Consequently, the graphical indicator conditions input by the user are converted into a condition structure.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 7, 14, 18, and 19 are rejected under 35 U.S.C 102(e) as being anticipated by U.S. Patent No. 6,323,885, which is attributed to Wiese. In general, Wiese presents a system whose end-result is the display of a map on a computer, wherein this map displays the various values of a plurality of real estate parcels. Regarding the claimed invention, these various values are displayed as graphical symbols rather than as entries of textual data (see column 1, lines 13-41). These “entries” are understood to be entries in a data field. Wiese therefore presents a computer-implemented system for displaying graphical indicators instead of text data in a field.

Regarding claim 1, Wiese discloses that,

The computer system associates each of a plurality of symbols with a range of sales prices. Preferably each symbol includes a color and shape. Each color is associated with a different range of sales prices. Each range is further divided in to sub-ranges, with each shape within each color associated with one of the sub-ranges. Thus, the color of a symbol indicates the range of sales prices, while the shape further defines the sub-range of sales prices. (See column 1, lines 34-41).

Wiese thus presents a condition structure, which defines a relationship between the data, i.e. the sales prices, the graphical indicator conditions, i.e. the various ranges and sub-ranges of sales prices, and the corresponding graphical indicators, i.e. the various symbols. And since the colors of these symbols are selectable (see column 3, lines 11-20), it is interpreted that some sort of user

Art Unit: 2173

interface is required for selecting the various colors of symbols, and thus generating these condition structures. Wiese further describes a value database and a first CPU; the value database lists the plurality of geographic locations and their corresponding sales prices (see column 2, lines 35-49), and the first CPU reads this value database and associates one of a plurality of graphical symbols with each geographic location in the value database (see column 3, lines 63-65). Since the first CPU uses the above-described condition structure in order to make these associations (see column 3, lines 59-65), the first CPU is considered a "graphical indicator engine," like that defined in claim 1 of the instant application. Lastly, Wiese notes that the symbols are presented to a user on a computer display (see column 3, lines 40-43). As these symbols are used in place of textual data in a field (see column 1, lines 13-51), the system presented by Wiese is considered to include a display for replacing data in a field with a symbol identified by a condition structure.

In regard to claim 2, the system described by Wiese presents to a user a plurality of symbols representing the prices of various real estate parcels, as is described above. It is understood that the system may store information fields which store data other than the sale price of each parcel. For example, the system may store information regarding a sales date for each parcel (see column 1, lines 12-21). As shown in the map of figure 2, no graphical indicator is displayed which represents a sales date. Consequently, since some fields may be represented by graphical indicators, and since some may not, it is understood that the display must include memory storage for storing information that determines whether each field is capable of supporting display of graphical indicators.

As per claim 3, the first CPU described by Wiese is considered a graphical indicator engine, as is described above. This CPU is considered to include memory storage for storing the condition structures and associated graphical indicators (see column 3, lines 59-65).

Referring to claim 4, the system presented by Wiese, as described above, displays graphical indicators instead of data from a field. Consequently, Wiese is considered to teach a method for displaying graphical indicators instead of data in a field. More specifically, the system of Wiese includes a computer display for displaying a map of graphical indicators (see column 3, lines 40-46), and also defines a plurality of graphical indicator conditions, which as described above are namely the ranges and sub-ranges of parcel prices. These graphical indicator conditions are used to determine what graphical indicators to display (see column 3, lines 59-65). It is understood that display signal is required to display the map, and the conditions are required to determine the symbols to display. In other words, it is understood that a display signal and graphical indicator conditions must be obtained. Wiese therefore teaches obtaining a display signal and graphical indicator conditions that determine when to display graphical indicators. Additionally, Wiese teaches converting the graphical indicator conditions into condition structures that define a relationship between the data, i.e. the parcel values, the graphical indicator conditions, i.e. the ranges and sub-ranges of values, and the corresponding graphical indicators, i.e. the shapes displayed on the map (see column 3, lines 59-65). Wiese states that a first CPU, which is described above, associates a symbol with each parcel in a database of parcels (see column 3, lines 63-65). It is interpreted that these associations are done by comparing the value of each parcel to the above-described ranges and sub-ranges of parcel values. Wiese therefore teaches comparing the data to the graphical indicator conditions

Art Unit: 2173

retrieved from the condition structures to determine if there is a match; and, since the graphical indicators are displayed in a map, displaying the graphical indicator or the data depending on the outcome of the data compared to the graphical indicator conditions.

With respect to claim 7, a first CPU in the system of Wiese associates a graphical indicator with each parcel in a database of parcels, whereby these associations are done by comparing the value of each parcel to the above-described ranges and sub-ranges of parcel values, as is described above. It is interpreted that the parcels are selected for comparison in some specific order, rather than at random. For example, the parcels may be selected for comparison, based on their location in memory, or via some other method known in the art. In any case, some parcels are chosen for comparison before other parcels. Thus Wiese teaches comparing the data in a prioritized order.

Regarding claim 14, the ranges and sub-ranges of parcel values are considered graphical indicator conditions, as is described above. Wiese particularly notes that the sizes of these ranges and sub-ranges may vary, depending upon the geographic area to which they are associated (see column 3, lines 17-18). It is therefore interpreted that the graphical indicator conditions are validated to determine that the ranges and sub-ranges are of correct size.

In reference to claim 18, the first CPU disclosed by Wiese, and described above, associates each of a plurality of graphical indicators with a sub-range of parcel values (see column 3, lines 59-62). In other words, the first CPU defines a condition structure. Wiese further states that the first CPU reads out each parcel in a database of parcels, and associates a symbol with the parcel based on this condition structure (see column 3, lines 63-65). It is interpreted that the CPU stores the condition structure, rather than re-define it for every parcel in

Art Unit: 2173

the database. Thus Wiese teaches storing the condition structures and the associated graphical indicators.

In reference to claim 19, Wiese discloses that by moving a cursor over a graphical indicator, a pop-up appears which displays additional information regarding the parcel associated with the graphical indicator. Such additional information may include the exact value of the parcel (see column 3, lines 43-51). Wiese thus teaches displaying the data when hovering over the graphical indicators.

Allowable Subject Matter

Claims 5, 6, 8-13, and 15-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following is an examiner's statement of reasons for allowance:

In regard to claims 5 and 6, the cited prior art anticipates a method for displaying graphical indicators instead of data in a field, wherein graphical indicator conditions that determine when to display graphical indicators are obtained. The cited prior art however does not explicitly disclose that such graphical indicator conditions may be set, as is expressed in claim 5. Therefore, the cited prior art does not teach requesting an option to set the graphical indicators conditions; displaying graphical indicator conditions from which to chose; determining if the conditions structures exist by checking memory storage; converting the existing condition structures back into graphical indicator text; displaying the graphical indicator

Art Unit: 2173

text so that the user can understand the existing graphical indicator conditions; and modifying the graphical indicator conditions by allowing the user to change or add to the existing graphical indicator text. As claim 6 depends on claim 5 and includes all of the limitations of claim 5, claim 6 is considered allowable.

As per claims 8-13, the cited prior art anticipates a method for displaying graphical indicators instead of data in a field, wherein a step is included for displaying graphical indicators or data depending on the outcome of the data compared to graphical indicator conditions. It is interpreted that the prior art of Wiese anticipates determining if there are more fields to test whether to display the graphical indicators. Also the use of cache, and its benefits, is well-known in the art. However, the prior art does not explicitly disclose filling a cache with a display signal that indicates whether to display a graphical indicator; and for each field, displaying text data or a graphical indicator based on this display signal, as is expressed in claim 8. As claims 9-13 depend on claim 8 and include all of the limitations of claim 8, claims 9-13 are considered allowable.

In regard to claims 15-17, the cited prior art anticipates a method for displaying graphical indicators instead of data in a field, wherein a step is included for validating graphical indicator conditions. However, the prior art does not explicitly disclose how such graphical indicator conditions are validated. Therefore, the prior art does not teach the steps recited in claims 15-17, which explicitly disclose how graphical indicator conditions may be validated.

Claims 20-50 are allowed. The following is an examiner's statement of reasons for allowance:

As per claims 20-25, the cited prior art anticipates a system for displaying graphical indicators instead of data in a field, the system comprising: a user interface operative to generate condition structures in response to receiving graphical indicator conditions, the condition structures defining a relationship between the data, the graphical indicator conditions, and the corresponding graphical indicator; a graphical indicator engine responsive to the graphical indicator conditions in the condition structures for each field, for comparing the data to the graphical indicator conditions, the graphical indicator engine operative to output a display signal in response to the graphical condition matching the data; and, a display responsive to the display signal, for replacing the data in the field with the graphical indicator identified by the condition structure. It is interpreted that the prior art anticipates determining if there are more fields to test whether to display the graphical indicators. Also the use of cache, and its benefits, is well-known in the art. However, the prior art does not explicitly disclose a display operative to fill a cache with a display signal that indicates whether to display a graphical indicator, and, for each field, display text data or a graphical indicator based on this display signal, as is expressed in claim 20. As claims 21-25 depend on claim 20 and include all of the limitations of claim 20, claims 21-25 are considered allowable.

In reference to claims 26-37, the prior art teaches a medium having computer-executable instructions for performing steps comprising: obtaining a display signal and graphical indicator conditions that determine when to display graphical indicators; converting the graphical indicator conditions into condition structures that define a relationship between the data, the graphical indicator conditions, and the corresponding graphical indicators; comparing the data to the graphical indicator conditions retrieved from the condition structures to determine if there is a

Art Unit: 2173

match; and displaying either the graphical indicator or the data depending on the outcome of the data compared to the graphical indicator conditions. Moreover, a step is included for validating graphical indicator conditions. The prior art, however, does not explicitly disclose how such graphical indicator conditions are validated. More specifically, the prior art does not explicitly teach validating the graphical indicator conditions by: validating test data by determining if the test data equals a pre-defined operation, validating value data by determining if the value data is a legitimate field name or legitimate data, and validating image data by determining if the image data is equal to pre-defined image data, as is recited in claim 26. As claims 27-37 depend on claim 26 and include all of the limitations of claim 26, claims 27-37 are considered allowable.

With respect to claims 38-50, the cited prior art teaches a computer-readable medium for displaying graphical indicators instead of data in a field, the medium having computer-executable instructions for performing the steps of: obtaining a display signal and graphical indicator conditions that determine when to display graphical indicators; converting the graphical indicator conditions into condition structures that define a relationship between the data, the graphical indicator conditions, and the corresponding graphical indicators; comparing the data to the graphical indicator conditions retrieved from the condition structures to determine if there is a match; and displaying the graphical indicator or the data depending on the outcome of the data compared to the graphical indicator conditions. It is interpreted that the prior art also teaches determining if there are more fields to test whether to display the graphical indicators. In addition, the use of cache, and its benefits, is well-known in the art. However, the prior art does not explicitly disclose filling a cache with a display signal that indicates whether to display a graphical indicator, and for each field, displaying text data or the graphical indicator based on

this display signal, as is expressed in claim 38. As claims 39-50 depend on claim 38 and include all of the limitations of claim 38, claims 39-50 are considered allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

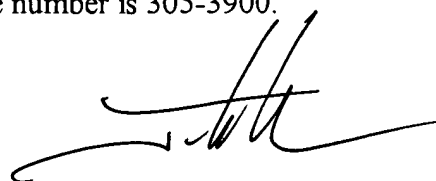
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blaine Basom whose telephone number is (703) 305-7694. The examiner can normally be reached on Monday through Friday, from 8:30 am to 5:30 pm.

Art Unit: 2173

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca can be reached on (703) 308-3116. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 305-3900.

btb



JOHN CABECA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2173